

Luke Justin Buckley

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EDUCATION

- MS in Technical Communication, *Highest Honors*** **2018**
Montana Tech of The University of Montana, Butte, MT
Project Title: "Applying User Centered Design Principles to Deliver Surface Water Data to Diverse Audiences"
- BS in Mathematics** **1995**
Montana Tech of The University of Montana, Butte, MT
- ASE in Geological Engineering** **1993**
Montana Tech, Butte, MT

PROFESSIONAL EXPERIENCE

- Associate Professor—Data Scientist** **1994—Present**
Montana Tech, Montana Bureau of Mines and Geology
2018—Present, Associate Professor—Data Scientist, Adjunct Teaching Faculty
2016—2018, Data Systems Manager II
2005—2016, Computer Software Engineer, Applications II
2004—2005, Computer Software Engineer, Applications I
2001—2004, Computer Support Specialist I
1994—2001, Information Systems Support Specialist

DUTIES

- Plan, design, develop, implement, and administrate 52 agency databases.
- Plan, design, develop, implement, and administrate 42 agency web applications.
- Design and maintain security policies for databases and web applications.
- Design, implement, and administrate Data Center disaster recovery and backup policies.
- Design, develop, implement, and administrate high-availability strategies for data center using mirroring and replication technologies.
- Design, develop, implement, and administrate Business Intelligence and ETL processes using Integration Services.

- Develop and manage performance tuning and analysis strategies for Data Center.
- Administrate all public and private agency websites.
- Design, develop, deploy, and administrate agency web applications.
- Develop, distribute, and enforce policies and procedures to maintain data security and integrity.
- Consult with Local, State, and Federal government as well as private data partners.
- Develop and implement training materials for staff and other database users.

PROGRAMMING AND OTHER SOFTWARE PACKAGES

- Microsoft Visual Studio (6, 2003, 2005, 2008, 2010, 2012, 2013, 2015, 2017)
 - Visual Basic, C++, C#, Java, JavaScript, PHP, HTML (1-5), CSS (1-3)
- Microsoft SQL Server (2000 Standard, 2005 Standard, 2008 Standard, 2012 Standard, 2014 Enterprise, 2016 Enterprise)
 - SQL Server Management Studio
 - SQL Server Integration Services
 - SQL Server Analysis Services
 - SQL Server Reporting Services
- Microsoft Windows Server (NT, 2003, 2008, 2012, 2016)
- Microsoft Internet Information Services (5, 6, 7, 7.5, 8, 8.5, 10)
- ESRI ArcGIS Server (9.3, 10.0, 10.1, 10.2, 10.3, 10.4)
 - ArcGIS API for JavaScript (2.8-4.0)
- Adobe InDesign CC
- Microsoft Office (Word, Excel, PowerPoint, Access)
- PowerBuilder
- Sybase Adaptive Server

AWARDS

- Paulette Miller Memorial Award, Montana Tech Institute for Educational Opportunities, Recognition of 25 years of Service to the Montana Tech Science and Engineering Fair (2016)
- Montana Board of Water Well Contractors, Recognition of Determined Dedication and Professional Knowledge in the Development, Implementation, and Success of the Groundwater Information Center (2012)

CERTIFICATIONS

Microsoft Certified Professional (MCPID# 3841242)

Microsoft Certified IT Professional: SQL Server Database Administration, October 2007

Microsoft Certified Technology Specialist: SQL Server, February 2007

UNIVERSITY SERVICE

2012–Present: Montana University System Wellness Champions

- Promote wellness mentality among campus employees
- Participate in campus wellness events

2008–Present: Faculty/Staff Advisor to the Baptist Student Union Campus Club

2001–Present: Head Judge Division II, Montana Tech Science and Engineering Fair

- Orient and manage science fair judges during the yearly fair
- Participate in planning and organizational meetings during the year

2001–Present: Member, Montana Tech Science and Engineering Fair Advisory Board

- Participate in meetings to provide guidance for the Montana Tech Science and Engineering Fair

1994–Present: Staff Support, Groundwater Assessment Act Steering Committee

1991–Present: Judge, Southwest Montana Regional Science and Engineering Fair

- Evaluate and judge Science and Engineering Fair projects

Search Committees

2015: Served on three campus search committees

2014: Served on three campus search committees, Chair for one campus search committee

2012: Served on one campus search committee

2011: Served on one campus search committee

2010: Served on two campus search committees

2009: Served on four campus search committees

2008: Served on three campus search committees

2007: Served on three campus search committees

COMMUNITY SERVICE

2012–Present: Judge, National Forensics League—Speech and Debate Tournament, Butte High School

PROFESSIONAL MEMBERSHIPS

2018–Present: Member, Five-Year Planning Workgroup of the Subcommittee on Ground Water (SOGW), Advisory Committee for Water Information (ACWI) (US Government)

- 2017–Present: Member, Montana Section American Water Resources Association
- 2014–Present: Member, DNRC-MBMG Surface Water Assessment and Monitoring Program development group (Information Technology)
- 2007–2013: Member, Data Standards and Data Management Workgroup of the Subcommittee on Ground Water (SOGW), Advisory Committee for Water Information (ACWI) (US Government)
- 2001–2003: Member, Montana Section American Water Resources Association
- 1999: Montana Department of Natural Resources and Conservation Database Technical Working Group

GRANTS, PROJECTS, AND PROPOSALS

- Buckley, L.J., 2018, Montana University System Wellness Grant, \$4,960 (application submitted)
- Buckley, L.J., 2017, Montana University System Wellness Grant, \$4,700
- Buckley, L.J., 2014, MT Contribution to the National Geothermal Data System – Installing GIN-stack, \$12,000
- Getty, J., McDonald, C., Vuke, S., Gunderson, J., and Buckley, L.J., 2013, Evaluating Proppant Sources within Montana, Montana Board of Oil and Gas Conservation
- Stickney, M., Patton, T., Thale, P., and Buckley, L.J., 2013, Earthquake State Assistance, Federal Emergency Management Agency
- Buckley, L.J. and Duaiame, T.E., 2011, Burlington Northern Somers Groundwater Information Consolidation, Montana Department of Environmental Quality
- Duaiame, T.E. and Buckley, L.J., 2010, Idaho Post and Pole Data Transfer, Montana Department of Environmental Quality
- Icopini, G.I., Buckley, L.J., Gunderson, J., 2010, State Geological Survey Contributions to the National Geothermal Data System, \$401,009

PUBLICATIONS

- Buckley, L.J., 2018, The Surface Water Assessment and Monitoring Program and the MBMG Data Center [Abstract]. Submitted to 2018 Annual Meeting of the Montana Section of the American Water Resources Association: Collaborative Science Conference.
- Buckley, L.J., 2018, Applying User Centered Design Principles to Deliver Surface Water Data to Diverse Audiences. *Graduate Theses & Non-Theses*. 155.
https://digitalcommons.mtech.edu/grad_rsch/155.
- Buckley, L.J., 2017, User-Centered Design: Best practices to effectively deliver Montana surface water data [Abstract]. Montana AWRA Proceedings for Science, Policy and Communication: The role of science in a changing world 2017 Conference (pp. 29-30).
- Patton, T.W., and Buckley, L.J., 2013, Results of the Montana Pilot Study for the National Ground Water Monitoring Network Water Monitoring Network, Prepared for the Advisory Committee on Water Information Subcommittee on Ground Water, 74 p.
- Patton, T.W., McKenna, D.P., Smith, L.N., LaFave, J.I., Buckley, L.J., 1997, Activities of the

Montana Ground-Water Assessment Program, Montana Bureau of Mines and Geology:
Ground-water Open-File Report 3, 16 p.

PRESENTATIONS

- April 2018: "2017/18 at the Data Center" Presented at the MBMG Annual Research Meeting, Butte, Montana, April 19, 2018.
- March 2018: "Skiing through Mountains of Data" Presented at the Montana Tech Public Lecture Series, Butte, Montana, March 1, 2018.
- February 2018: "Campus Wellness Incentives: Activities and You" Presented at the Montana Tech Faculty Senate Luncheon Learning Series, Butte, Montana, February 7, 2018.
- December 2017: "Montana's Monitoring Network and Database" Presented at the National Ground-Water Monitoring Network New Data Providers Meeting in Conjunction with NGWA Groundwater Summit and Groundwater Week, Nashville, Tennessee, December 5, 2017.
- October 2017: "User-Centered Design: Best Practices to Effectively Deliver Montana Surface-Water Data" Presented at the American Water Resources Association, Montana Section 2017 Conference, Helena, Montana, October 20, 2017.
- October 2017: "Montana: Ground Water Information Center–The Water Well Record Database for the State of Montana" Presented at the National Ground Water Association's (NGWA) Virtual Conference on State/Provincial Water Well Record Databases, Butte, Montana, October 11, 2017.
- March 2017: "Promoting Effective Communication through Redesign of the MBMG Web Presence", presented at Montana Bureau of Mines and Geology Annual Meeting, Butte, Montana
- February 2016: "MBMG Data Center 2016" presented at MBMG Annual Research Seminar, Butte, Montana
- February 2014: "Earth Science Data Delivery at MBMG" presented at Montana Water Well Drillers Association, Billings, Montana
- April 2013: "Ground Water Information Center" presented to Great Falls Association of Realtors in conjunction with Montana Water Center (MSU)
- February 2010: "Getting Good Data" presented at Montana Water Well Drillers Association, Billings, Montana
- February 2009: "Integrating GPS data into GWIC" presented at Montana Water Well Drillers Association, Helena, Montana
- May 2008: "GWIC locations and DrillerWeb" presented to Board of Water Well Contractors continuing education class, Helena, Montana
- February 2008: "The importance of good locations: GPS data" presented at Montana Water Well Drillers Association, Missoula, Montana
- February 2008: "A Tour of the Ground-Water Information Center" presented to the MIN 4440 class at Montana Tech of The University of Montana

May 2007: "A Tour of the Ground-Water Information Center" presented to the MIN 1520 class at Montana Tech of The University of Montana

February 2006: "DrillerWeb: Online data entry for drillers in the state of Montana" presented at Montana Water Well Drillers Association

December 2004: "DrillerWeb: Online data entry for drillers in the state of Montana" presented to NGWA convention, Las Vegas, Nevada

February 2004: "DrillerWeb" presented at the Montana Water Well Drillers Association, Kalispell, Montana

September 2001: "A Tour of the Ground-Water Information Center" presented to Montana Rural Water Association conference, Great Falls, Montana

October 2000: "Ground Water on a Platter: Serving Data on the World-Wide Web from the Montana Ground-Water Information Center" presented to Montana section of the American Water Resources Association, West Yellowstone, Montana

PROFESSIONAL DEVELOPMENT COURSES

2013: Microsoft Curriculum Online Live Training, New Horizons, Spokane, Washington

Microsoft Official Course 10774A: Querying Microsoft SQL Server 2012

Microsoft Official Course 10776A: Developing Microsoft SQL Server 2012 Databases

Microsoft Official Course 10777A: Implementing a Data Warehouse with Microsoft SQL Server 2012

Microsoft Official Course 10778A: Implementing Data Models and Reports with Microsoft SQL Server 2012

Microsoft Official Course 10174B: Configuring and Managing Microsoft SharePoint 2010

Microsoft Official Course 10175A: Microsoft SharePoint 2010, Application Development

Microsoft Official Course 20480: Programming in HTML5 with JavaScript and CSS3

Microsoft Official Course 10262: Developing Windows Applications with Microsoft Visual Studio 2010

Microsoft Official Course 10775: Administering Microsoft SQL Server 2012 Databases

2012: Microsoft Curriculum Online Live Training, New Horizons, Spokane, Washington

Microsoft Official Course 10267A: Introduction to Web Development with Microsoft Visual Studio

Microsoft Official Course 10265A: Developing Data Access Solutions with Microsoft Visual Studio

Microsoft Official Course 10264A: Developing Web Applications with Microsoft Visual Studio

Microsoft Official Course 10550A: Programming in Visual Basic with Microsoft Visual Studio

Microsoft Official Course 6235A: Implementing and Maintaining Microsoft SQL Server 2008 Integration Services

2012: Environmental Systems Research Institute (ESRI) Training

Data Management in the Multiuser Geodatabase

ArcGIS Server Enterprise Configuration and Tuning for SQL Server

Creating Effective Web Applications using ArcGIS Server

ArcGIS Server: Web Administration using Microsoft .NET Framework

Building Web Applications Using the ArcGIS API for JavaScript

Introduction to ArcGIS Server

System Architecture Design Strategies

Introduction to Geoprocessing Scripts using Python

2011: Microsoft Curriculum Mentored Learning, New Horizons, Spokane, Washington

Microsoft Official Course 2778: Writing Queries Using Microsoft SQL Server 2008

Microsoft Official Course 6231: Maintaining a Microsoft SQL Server 2008 R2 Database

Microsoft Official Course 6232: Implementing a Microsoft SQL Server 2008 R2 Database

Microsoft Official Course 6234: Implementing and Maintaining Microsoft SQL Server 2008
Analysis Services

Microsoft Official Course 6235: Implementing and Maintaining Microsoft SQL Server 2008
Integration Services

Microsoft Official Course 6236: Implementing and Maintaining Microsoft SQL Server 2008
Reporting Services

2009 – 2010: Microsoft Curriculum Mentored Learning, New Horizons, Spokane, Washington

Microsoft Official Course 2956: Core Foundations of Microsoft .NET 2.0 Development

Microsoft Official Course 2957: Advanced Foundations of Microsoft .NET 2.0 Development

Microsoft Official Course 2543: Core Web Application Technologies with Microsoft Visual
Studio 2005

Microsoft Official Course 2544: Advanced Web Application Technologies with Microsoft
Visual Studio 2005

Microsoft Official Course 2541: Core Data Access with Microsoft Visual Studio 2005

Microsoft Official Course 2542: Advanced Data Access with Microsoft Visual Studio 2005

2006 – 2007: Microsoft Curriculum Mentored Learning, New Horizons, Spokane, Washington

Microsoft Official Course 2779: Implementing a Microsoft SQL Server 2005 Database

Microsoft Official Course 2780: Maintaining a Microsoft SQL Server 2005 Database

Microsoft Official Course 2786: Designing a Microsoft SQL Server 2005 Infrastructure

Microsoft Official Course 2787: Designing Security for Microsoft SQL Server 2005

Microsoft Official Course 2788: Designing High Availability Database Solutions Using
Microsoft SQL Server 2005

Microsoft Official Course 2789: Administering and Automating Microsoft SQL Server 2005
Databases and Servers

Microsoft Official Course 2790: Troubleshooting and Optimizing Database Servers Using
Microsoft SQL Server 2005

2000 – 2002: Cisco Certified Network Associate Curriculum, Montana Tech College of Technology, Butte, Montana

Cisco I: Networking Fundamentals

Cisco II: Introduction to Router Technologies

Cisco III: Routing and Switching

Cisco IV: WAN Technologies

VIDEOGRAPHY

- Montana Tech Baja Club— <https://impact.mtech.edu/project/9619>
- Montana Tech 2018 Intermountain Junior Science and Humanities Symposium